

WHAT IS CLAIMED IS:

1. A drive roller for a conveyor comprising a hollow cylinder for housing a motor and a knurled surface.
2. The drive roller according to claim 1, wherein said knurled surface comprises a plurality of raised surface portions extending from a first end of said drive roller to a second end of said drive roller.
3. The drive roller according to claim 1, wherein said drive roller comprises a metal.
4. The drive roller according to claim 3, wherein said metal comprises a steel alloy.
5. The drive roller according to claim 3, wherein said metal comprises an aluminum alloy.
6. The drive roller according to claim 1, wherein said drive roller comprises a polymer material.
7. The drive roller according to claim 6, wherein said polymer comprises a plastic.
8. A mount for affixing a motor to a conveyor system in a self-checkout system, said mount comprising a substantially round flange having a plurality of openings for affixing said mount to said conveyor system and a central opening for receiving a portion of said motor.
9. The mount according to claim 8, wherein said central opening comprises a rectangular opening.
10. The mount according to claim 8, comprising a machined metal.
11. The mount according to claim 8, comprising a ultra high molecular weight plastic.
12. The mount according to claim 8, comprising a high-density low friction material.

13. A tracking guide for a conveyor belt of a conveyor system, said tracking guide mounted adjacent a drive roller, said conveyor system comprising:

a first side support rail having an inner side and an outer side;

a second side support rail spaced apart from said first side support rail and positioned parallel thereto, said second side support rail having an inner side and an outer side;

a first motor mount affixed to said first side support rail at a first end of said first side support rail;

a second motor mount affixed to said second side support rail at a first end of said second side support rail;

a hollowed drive roller having a knurled surface, said drive roller transmitting a driving force from a drive motor housed within said driver roller, wherein said drive roller being positioned at one end of said first side support rail and said second side support rail; and

a return roller positioned at a second end of said first side support rail and said second side support rail,

said tracking guide having a substantially flat shape including an opening for receiving a mounting member of said drive motor, wherein a single tracking guide is positioned on either side of said drive roller, between said drive roller and said respective side support rail.

14. The tracking guide according to claim 13, wherein said tracking guide comprises an ultra-high molecular weight plastic (UHMW).

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15. The tracking guide according to claim 13, wherein said tracking guide comprises a high-density low friction material.

16. A tracking guide for a conveyor belt of a conveyor system, said tracking guide mounted adjacent a return roller, said conveyor system comprising:

a first side support rail having an inner side and an outer side;

a second side support rail spaced apart from said first side support rail and positioned parallel thereto, said second side support rail having an inner side and an outer side;

a first motor mount affixed to said first side support rail at a first end of said first side support rail;

a second motor mount affixed to said second side support rail at a first end of said second side support rail;

a hollowed drive roller having a knurled surface, said drive roller transmitting a driving force from a drive motor housed within said driver roller, wherein said drive roller being positioned at one end of said first side support rail and said second side support rail; and

a return roller positioned at a second end of said first side support rail and said second side support rail,

said tracking guide having a substantially flat shape including an opening for receiving an end of said return roller, wherein a single tracking guide is positioned on either side of said return roller, between said drive roller and said respective side support rail.

17. The tracking guide according to claim 16, wherein said tracking guide comprises an ultra-high molecular weight plastic (UHMW).

18. A precision machined motor mount for supporting a drive motor for a conveyor system, wherein said conveyor system comprises:

a first side support rail having an inner side and an outer side;

a second side support rail spaced apart from said first side support rail and positioned parallel thereto, said second side support rail having an inner side and an outer side;

a hollowed drive roller having a knurled surface, said drive roller transmitting a driving force from a drive motor housed within said driver roller, wherein said drive roller being positioned at one end of said first side support rail and said second side support rail; and

a return roller positioned at a second end of said first side support rail and said second side support rail,

a pair of first tracking guides provided adjacent both ends of said driver roller;

a pair of second tracking guides provided adjacent both ends of said return roller; and

a conveyor belt,

said motor mount having a central hub with an opening for receiving an end of a drive motor and having a flange for mounting said motor mount to a one of said side support rails.

19. A conveyor system for a self-checkout apparatus comprising:

a first side support rail;

a second side support rail spaced apart from said first side support rail and positioned parallel thereto;

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a first motor mount affixed to said first side support rail at a first end of said first side support rail;

a second motor mount affixed to said second side support rail at a first end of said first side support rail;

a drive roller having a knurled surface, said drive roller transmitting a driving force from a drive motor and positioned at one end of said first side support rail and said second side support rail;

a return roller positioned at a second end of said first side support rail and said second side support rail;

a pair of first tracking guides provided adjacent both ends of said driver roller;

a pair of second tracking guides provided adjacent both ends of said return roller; and

a conveyor belt.

20. A conveyor for a self-checkout apparatus comprising:

a first side support rail having an inner side and an outer side;

a second side support rail spaced apart from said first side support rail and positioned parallel thereto, said second side support rail having an inner side and an outer side;

a first motor mount affixed to said outer side of said first side support rail at a first end of said first side support rail;

a second motor mount affixed to said outer side of said second side support rail at a first end of said first side support rail;

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a hollowed drive roller having a knurled surface, said drive roller transmitting a driving force from a drive motor housed within said driver roller, wherein said drive roller being positioned at one end of said first side support rail and said second side support rail;

a return roller positioned at a second end of said first side support rail and said second side support rail;

a pair of first tracking guides provided adjacent both ends of said driver roller;

a pair of second tracking guides provided adjacent both ends of said return roller; and

a conveyor belt.

21. An un-powered roller conveyor for transporting items from a motorized conveyor of a self-service checkout system to a packaging area comprising:

a plurality of first rollers positioned adjacent one another in a substantially straight line in a first housing, wherein a top of each roller corresponding to an inclined surface; and

at least one cassette roller positioned in a removable cassette housing, wherein said cassette roller is positioned immediately adjacent a first roller of said plurality of rollers such that a top of said cassette roller substantially corresponds to said inclined surface, and wherein said cassette having a second end for positioning immediately adjacent one end of a belt conveyor.

22. The un-powered roller conveyor according to claim 21, wherein a plurality of cassette rollers are positioned in said removable cassette housing, and wherein a top of each of said cassette rollers substantially corresponds to said inclined surface.
23. The un-powered roller conveyor according to claim 21, wherein said inclined surface is approximately between 5 and 10 degrees to horizontal.

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